DOCUMENT RESUME

ED 276 969 CS 008 588

AUTHOR Eckhoff, Barbara L.
TITLE How Basal Reading Texts Affect Children's Writing.
PUB DATE Apr 86
NOTE 37p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Basal Reading; Child Language; Elementary Education; Language Acquisition; *Reader Text Relationship; *Reading Research; *Reading Writing Relationship; Textbook Research; *Writing (Composition); Writing Readiness
IDENTIFIERS *Childrens Writing

ABSTRACT

A study investigated how children's writing reflects the syntactic complexity, style, and format of their basal readers. Subjects were 116 students drawn from 10 second, third, and fourth grade classrooms in two different schools located near Boston, Massachusetts. A matched group design was used, and students using a form of the "Ginn" basal series were matched with those using a form of the "Open Court" series. The various texts were analyzed for number of words per selection, t-units per selection, words per t-unit, and clauses per t-unit. Students' linguistic and comprehension abilities were assessed, as well as their knowledge of literature. They completed three writing exercises in response to different stimuli. Results indicated that the readers had a strong impact on children's writing. Those children using the "Open Court" series, which contained more elaborate structures than the "Ginn" series, tended to use more linguistically complex sentence structures, such as subordinate clauses, in their own writing. In addition, children in both groups tended to use the style and format of their basals as models for their writing. The findings suggest that publishers need to face the problem of writing texts that facilitate children's learning to decode words while at the same time providing adequate models of written English. (FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED276969

HOW BASAL READING TEXTS AFFECT CHILDREN'S WRITING

Barbara L. Eckhoff
24 Broadway
Watertown, MA 02172

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Barbara L. Eckhoff

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS 008 588

Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, April 1986

BEST COPY AVAILABLE

During the past few years, there has been increasing interest not only in how children learn to write but also in how reading and writing are related (Graves, 1980; Stotsky, 1982). Previous research shows that success in writing is well predicted by reading scores (Evanechko, Ollila, and Armstrong, 1974; Loban, 1976; Spearritt, 1980). Little is known, however, about the nature of the relationship between reading and writing.

My particular interest is in exploring the effects of basal readers children's writing. I have investigated how children's writing reflects (a) the syntactic complexity and (b) the style and format features of their basal readers. At first I was interested in how children learn to punctuate, particularly in how they learn to use commas. As I analyzed grade four children's writing for comma usage, I was struck by its familiarity. Comparing the writing to grade two basal readers, I discovered many similarities between the children's writing and the reading texts. As a result, I began an investigation of the effects of basal readers on children's writing. In a preliminary study (Eckhoff, 1983), I compared the writing of two second grade classes, one that was reading a basal series with controlled vocabulary, sentence length, and structure and another that was reading a linguistically more complex basal series. The results were striking. The children's writing resembled not only the style and format of the readers but, more, importantly their linguistic complexity. The purpose of this study was to extend the preliminary study to include grades three and four. Because other factors, such as reading ability, sex, socioeconomic status, linguistic ability, classroom instruction, and other books that children may have read, can influence children's writing, I considered these factors as well.

METHODS

Subjects and Design

The subjects were selected from ten second, third, and fourth grade classrooms in two schools located in a small, lower-middle to middle class community west of Boston. This school system was unusual in that both the Open Court and Ginn reading series were in use. Although the school system contained three elementary schools, one was excluded from the study because the socioeconomic status of the children was substantially higher than that of the children attending the other two schools.

Most of the subjects attended School A, which used both the Open Court and Ginn series. However, since no second grade classes in School A used the Ginn series, second graders from School B, where most classes read the Ginn series, were used for comparisons at this grade level. These classes included one class each at grades 2, 3, and 4 in School A, reading the Open Court series, three classes at grade 2 in School B, reading the Ginn series, and two classes each at grades 3 and 4 in School A, reading the Ginn series.

More than one Ginn class was tested at each grade level to ensure a sufficient number of subjects. Of the 203 children tested 23, 24, and 18 children respectively were in the grade 2, 3, and 4 Open Court classes. In one grade 2 Ginn class, there were 17 children, while in the other two classes there were 19 children each. In the grade 3 Ginn classes there were 17 and 19 children, and in the grade 4 Ginn classes, 21 and 22 children.

Children were excluded from the study primarily because class groups changed from year to year and as a result some children had read both the Ginn and Open Court series. Children were also excluded if they had been diagnosed as having learning disabilities, if they had received bilingual instruction or instruction in English as a second language, if their teachers had determined that emotional difficulties interfered with their writing, if they had repeated a grade, or if they attended special enrichment programs. After these exclusions, the number of experimental children remaining was 116 (OC: gr. 2 = 17, gr. 3 = 18, gr. 4 = 14;

G: gr. 2= 9, 5, and 12, gr. 3 = 9 and 10, gr.4 = 12 and 10).

The study has used a matched group design. At each grade level, the Ginn and Open Court children in the study population were matched on Peabody Picture Vocabulary Test (PPVT) scores. Either raw scores or scaled I.Q. scores could have been used. The scaled scores were used to match the subjects not only because previous research has shown that I.Q. scores correlate highly with other language abilities, but also because the I.Q. scores, which are based on age as well as performance, help to control for age factors as well as aptitude.

These matched pairs of children became the subjects for the study. There were 12 matched second grade pairs, with 3, 2, and 7 children respectively from each of the Ginn classes. The grade 3 matched groups had 13 children each, with 6 from one Ginn class and 7 from the other. Finally, the grade four groups had 11 children each, with 5 children from one Ginn class and 6 from the other. Results of t-tests comparing the PPVT scores of the matched pairs at each grade level show that there were no significant differences between the Ginn and Open Court children.

Materials

I collected Stanford Reading Achievement Test and sex data from the children's school records. Information on parental occupations was used to assess children's socio-economic status. To assess the children's linguistic abilities, I used the Peabody Picture Vocabulary Test (Form A) and adapted the Embedded Sentences Test (Olds, 1969), a test designed to measure comprehension of complex, embedded linguistic structures. The Huck Inventory of Children's Literature was used to measure children's knowledge of literature. I also developed a Reading/Writing Interview to pinpoint differences in classroom instruction that may have affected the children's writing.

I used three writing stimuli to gather samples of the children's writing. One was the National Assessment of Educational Progress Writing Stimulus ("The Tomato Lady"), used during the 1969-70 National Assessment. The stimulus included a picture of an elderly woman holding a package of tomatoes and instructions that

said to "write about what the woman is doing and what she will do next." The second stimulus ("The Special Person") was adapted from the 1969-70 National Assessment for use as a writing assessment tool in the Harvard Family and Literacy Project (1982). This stimulus asked the children "to write about a person that you admire or look up to." Because the literature overwhelmingly concurs that an argumentative stimulus elicits the most complex writing (Crowhurst, 1979, 1980; Perron, 1976a,b) and because I was interested in eliciting complex linguistic structures in children's repertoires, I used an argumentative stimulus in addition to the narrative and expository stimuli. This stimulus showed two pictures, one of giraffes at a zoo and the other children of children at a beach with directions that said, "Decide whether you want to go the beach or the zoo and write a paper that tries to convince your teacher and classmates to agree with you."

Procedures

Each classrooom was visited three times. Although only some of the children in each class were subjects, tests were administered to the class as a whole and only the results for those children chosen as subjects were used in the analyses. This minimized interruptions in classroom procedures and provided back-up subjects. During the first visit, I administered the narratiave and expository writing stimuli according to uniform procedures that I had developed previously. This first session took approximately 30 minutes. On the second visit, I administered the argumentative writing stimulus. I also administered the Huck Inventory, reading aloud each question and the answer choices to the children, who underlined the correct answers. The second session took approximately 45 minutes. Finally, a trained assistant and I administered the Peabody Picture Vocabulary Test and the Embedded Sentences Test individually to each child chosen as a subject. Teachers were interviewed about their reading and writing programs.

Analyses

The method of analysis used was to quantify salient differences in the two reading series by counting linguistic features (selected elaborate structures and

verbs, including simple, future, present progressive, and other complex forms), style features (use of "and" and "too"), and format features (instances of unused line spaces, extra lines, and one sentence per line). These features were chosen because their occurrence in the two reading series differed significantly in the preliminary study and because preliminary analyses suggested they might characterize important differences in the two reading series.

Most of the measures used to characterize the texts and children's writing were not straight counts but ratios of counts per base measure, which expressed the relative frequency of occurrence of features in comparison to other features of the texts, e.g. simple verbs per total verbs. The counts per base measure were compared for the texts read at each grade level. The same measures and techniques were used to analyze the children's written stories.

Three parallel analyses have been necessary in order to demonstrate the influence of the Ginn and Open Court texts on the children's writing. First, representative samples of the two text series have been compared on a set of distinctive linguistic, style, and format features. Second, these same features have been compared in the stories written by children taught by the two reading series. Finally, differences in the texts and differences in the children's writing have been compared. When the results were in the same direction for both the texts and the children's stories, I have been able to conclude that the texts have, indeed, influenced the children's writing.

Because of the many comparisons that were made, the varying nature of the measures used, and the non-random assignment of subjects, repeated statistical tests could not be used nor could other statistical analyses with stringent data assumptions. Consequently, the Sign Test was applied to the comparison between the texts and the children's writing. Examination of the study results will demonstrate that more powerful statistical methods were not necessary. Finally, data are presented on the possible influence of confounding factors.

To evaluate the overall quality of the children's writing, I used holistic scoring procedures to rate the stories. The stories were typed, one per page, in

standard paragraph format with all misspellings corrected. The typed copies were used for the holistic scoring procedures instead of the children's handwritten versions to preclude the possibility that differences in handwriting and spelling would affect the results. Punctuation and capitalization errors were not corrected because evidence from the first study (Eckhoff, 1983) suggested that the basal readers may have influenced both of these features of the children's writing.

Holistic scoring procedures similar to those described by Cooper and Odell (1979, p. 11-12) were used. Each of the three types of stories -- narrative, expository, and argumentative -- was scored separately. I used stories set aside and not included in the study to train pairs of raters, who were educators familiar with children's writing. From among the practice stories, I chose four representative of the stories in the study and rated them myself on a four point scale, the best story receiving a "4," the next best a "3," and so on. The raters then used these stories and my ratings as a basis for scoring eight practice stories. Discrepancies between the raters' scores were discussed and consensus reached. To insure inter-rater reliability, the raters each scored an additional twelve practice stories. Again, any discrepancies were discussed and consensus reached.

When I was confident that the raters understood the scoring procedures, they proceeded to score stories written by the children in the study. After initially ranking the stories into four piles, the raters subdivided piles 2 and 3, which contained the most stories. Thus, the ratings were actually made on a six-point scale. The score for each story was the sum of the raters' scores. Thus, the lowest possible score was "2" and the highest "12." In instances where the raters' scores were more than one point apart, I made the final judgment. There was, however, little discrepancy in the scores. The percentage of agreement for the narrative stories was 88, for the expository 85, and for the argumentative 97.

RESULTS

Table 1 summarizes, by feature, comparisons between the texts, between the children's stories, and between the results for the texts and results for the stories. Plus marks (+) indicate results that support the hypotheses, minuses (-) indicate results contrary to the hypotheses, and zeros (0) indicate no differences in the results.

Linguistic Structures

Words, T-units, and Clauses: The Ginn and Open Court texts were compared at each grade level on the number of words per sample, T-units per sample, words per T-unit, and clauses per T-unit. Results show that the Open Court values overall are higher than Ginn except in the grade 4 texts where the number of clauses per T-unit is slightly higher for Ginn. These results are shown in Table 1. For each comparison, Table 1 indicates the reading series with the higher mean, and shows that, overall the Open Court texts contain more words, T-units, words per T-unit, and clauses per T-unit than the Ginn texts.

In the children's writing as in the texts, I analyzed the words, T-units, words per T-unit, and clauses per T-unit in each child's story. The results in Table 15 indicate that the grade 2 and grade 4 Open Court children wrote more words per story, T-units per story, words per T-unit, and clauses per T-unit than the Ginn children. On the other hand, while the grade 3 Open Court children wrote slightly more T-units than their Ginn counterparts, the Ginn third graders had the higher results for the other measures. Thus, the results for the texts and writing match at grades 2 and 4, while there is a reversal at grade 3. Possible explanations for this reversal are discussed later.

Table 1. Summary of Comparisons Between the Ginn and Open Court Texts, the Childrens' Stories, and the Texts and Stories.

Measure	Grade	G vs OC Texts Larger Result	G vs OC Texts Hyp +/-	G vs OC Writing Larger Result	G vs OC Writing Hyp +/-	Texts vs Writing Hypothesis +/-
Words	2	OC	+	OC	+	+
	3	OC	+	G	-	-
	4	OC	+	OC	+	+
T-units	2	OC	+	OC	+	+
	3	OC	+	OC	+	+
	4	OC	+	OC	+	+
Clauses	2	OC	+	OC	+	+
	3	OC	+	G	-	-
	4	G	-	OC	+	-
Elaborate Structures	2	OC	+	OC	+	+
	3	OC	+	G	-	-
	4	OC	+	OC	+	+
Simple Verbs	2	G	+	OC	-	-
	3	G	+	G	+	+
	4	G	+	G	+	+
Complex Verbs	2	OC	+	G	-	-
	3	OC	+	OC	+	+
	4	OC	+	OC	+	+
And's	2	G	+	G	+	+
	3	G	+	G	+	+
	4	G	+	G	+	+
too's	2	G	+	OC	-	-
	3	G	+	G	+	+
	4	G	+	OC	-	-
Unused Line Spaces	2	G	+	G	+	+
	3	G	+	G	+	+
	4	G	+	G	+	+
Extra Lines	2	G	+	G	+	+
	3	G	+	G	+	+
	4	tie	0	tie	0	0
One Sentence per Line	2	G	+	G	+	+
	3	G	+	G	+	+
	4	G	+	G	+	+
Total +			31		25	24
Total -			1		7	8
Total 0			1		1	1

Elaborate Structures: A comprehensive review of the texts showed that they contain the following elaborate structures: subordinate clauses, including adverb, adjective, and noun clauses; infinitives; infinitive phrases; participial phrases; gerund phrases; appositives; relative pronouns plus infinitives; superlative structures; and comparative structures. These structures comprised the majority of elaborate structures in the texts. Several other structures appeared so infrequently that they were not included in the analysis.

Comparative analyses of the Ginn and Open Court texts categorized all of these constructions as elaborate structures. Table 1 shows that the Open Court texts contain more elaborate structures than the Ginn texts. The following samples from the Ginn and Open Court texts, level 3.1, illustrate this difference in the two reading series.

> The moon is our nearest neighbor in space. It has flat places, high pointed mountains, and wide craters.
>
> There is no air on the moon. There are no clouds, no wind, no rain. So there is no water. There are no rivers, no oceans.
>
> You will see stars in the daytime, if you go to the moon. They will be clear bright points of light, and the sky will be dark.
>
> When we see the full moon rise in the sky, it glows with light. The moon looks like a shining ball, doesn't it? But the moon has no light of its own.
> (Ginn, level 3.1, p. 224)

> Since olden times, people have sung songs and told many different legends about the moon, for it was the most popular of all the heavenly bodies. Above all, people have wondered at its beauty and wondered why it is forever changing. They thought that these changes had someting to do with the birth, growth, death, and rebirth of many things on Earth. That is why people of olden times were careful to see whether the moon was in the right spot in the sky before they were going to do something important. They wanted the moon to bring them good luck.
> (Open Court, level 3.1, p. 116)

The results for the grades 2 and 4 Open Court stories again matched their texts, while the grade 3 results were reversed. (See Table 1.) Namely, the number of elaborate structures was higher for the grades 2 and 4 Open Court stories than for the Ginn stories. Figure 1 contains samples of the elaborate structures in the Open Court grades 2 and 4 stories. The grade 3 Ginn stories, on the other

Grade 2 Open Court Writing

She is also cute and when ever she laughs she turns beetred like the darkest red in the world.

I like the beach because when you get hot you can go in the water and you can jump off the dock.

There was once a lady that was know as a very nice lady. She was a sales lady. When a person came to buy something that she didn't have she would ask them if there was something else they wanted that was there.

Figure 1: Elaborate Structures in the Open Court Writing

Grade 4 Open Court Writing

I would like to go to the zoo because you can see animals that you have never seen before.

I would like to go to the zoo because you can see animals that you have never seen before.

They are the ones who brought the Bruins where they are now in the Stanley cup playoffs, in the Adams division professional.

They are the ones who brought the Bruins where they are now in the Stanley cup playoffs, in the Adams division professional.

Figure 1 Con't

Grade 4 Open Court Writing

If we went to the zoo in Washington D.C. we could see the two panda bears Lingling and Singsing.

If we went to the zoo in Washington D.C. we could see the two panda bears Lingling and Singsing.

I's like to go to the beach because it is a nice place to go swimming or take a walk or even to relax. You can play in the sand and make sandcastles or make pretend you're a pirate! and you're looking for a lost treasure on an old creepy Iland.

Figure 1 Con't

hand, contained more elaborate structures than the corresponding Open Court stories.

Overall, the important finding is that the children used linguistic structures from their texts in their writing. Reflecting the style of their texts, the grade 2 and 4 Open Court children tended to use more elaborate structures, whereas the grade 2 and 4 Ginn children limited themselves more to basic simple sentences. The findings were unexpectedly not confirmed, however, for grade 3.

Because there were no significant differences between the grade 3 Ginn and Open Court groups in age and parental occupations, it is unlikely these factors affected the results. The Huck and modified Huck scores, significantly higher for the grade 3 Open Court children, suggest that these Open Court children read more widely than their Ginn counterparts and thus were exposed to a greater variety of linguistic structures. As a result, one would expect the Open Court children to write more elaborate structures than the Ginn children. Clearly, if the Open Court children's outside reading influenced the number of elaborate structures in the writing, this effect was overcome by other factors.

Another factor that may have influenced the children's writing is their reading comprehension scores. Although the grade 3 reading comprehension scores were not significantly different, the average was higher for the Open Court children -- 5.3 compared to 4.0, which again would lead to the expectation of more elaborate structures in the writing of the Open Court children. The standard deviation of the Open Court scores, however, was three times that of the Ginn. Closer analysis of the individual scores shows that four Open Court children scored below the 3.0 grade level (2.9, 2.8, 2.6, and 2.0), while only one Ginn child did so (2.7). It may be that these Open Court children have language difficulties that affect both their reading and writing performances.

A final reason for the unexpected results may be classroom instruction. One third grade Ginn teacher encouraged her students to use the library frequently to read books on special topics and to write reports. Her students may have been

exposed to a wide variety of linguistic structures in their library reading. The scores suggest that this may be the case. The number of elaborate structures per sample for this Ginn class was 5.47, whereas the other Ginn class' score was 4.36 and the Open Court score was 4.36. Thus, it may be that differences in Open Court and Ginn children's language abilities and in classroom instruction affected the outcome.

Verbs: Initial examination of the texts suggested that Ginn contain more simple verbs, while the Open Court texts contained more complex verbs. All simple present and simple past tense verbs such as "climbs" in the sentence "He climbs on walls" and "gave" in the sentence "She gave them to another man" were counted as simple verbs, and the following categories of verbs were counted as complex verbs: present progressive (She is going to the store); future (The old woman will buy some tomatoes); modals (Our class could go to the zoo); pro-verbs (She did buy some tomatoes. I know she did.); passive (The tomatoes were sold at the store); past progressive (She was buying the tomatoes); and past perfect (She had brought some tomatoes).

The data were analyzed by calculating the number of simple verbs per total verbs and the number of complex verbs per total verbs, both for the texts and the children's stories. Table 1 shows that, at all grade levels, the average number of simple verbs per total verbs was higher for the Ginn texts and the average number of complex verbs per total verbs was higher for the Open Court texts at all grade levels. The results for the grade 3 and 4 children's writing matched those of the texts whereas the writing results were contrary to the texts for grade 2 (see Table 1.) The grade 2 Open Court children tended to write more simple verbs and fewer complex verbs per total verbs than the Ginn children, despite differences in the opposite direction for the texts.

In sum, the Open Court texts and children's writing contained consistently more complex verb forms than the Ginn, with exception of the reversal at grade 2.

Because there were no significant differences in reading scores, linguistic abilities, parental occupations, or exposure to children's literature, it is

unlikely these factors affected the grade 2 results. The only likely remaining explanation for this phenomenon is classroom instruction, though I have no specific data to support this hypothesis. As part of the prescribed Open Court curriculum, teachers are asked to write model sentences on the blackboard for the children to correct. The Open Court grade 2 teacher may have used sentences in the simple present and past both in her blackboard teaching and in supplementary materials.

Style Features

There are style differences as well as the linguistic differences between the two reading series. The style features analyzed include "And" at the beginning of sentences and "too" at the end of sentences.

The word "And": One obvious difference in the two reading series is the Ginn use of "and" at the beginning of sentences, for example:

> Crispin's Crispian lived in a doghouse
> in a garden.
> And there was a place for the boy
> to live there with him.
> And there had a little bedroom
> where he hid his bones.
> And he had windows to look out of
> and a garden to run around in
> any time he wanted to run around in it.
> And he had a little room where he fixed himself
> a good dinner three times a day, because
> he like to eat. He liked beef and soup.
> (Ginn, level 2.2, p. 120)

In the Ginn and Open Court texts, all occurrences of "And" at the beginning of a sentence were counted. Occurrences of "and" or "And" in the children's writing were counted only when preceded by a period. The measure was the number of "and's" per 1,000 words.

Table 1 shows that the proportion of "and's" per 1,000 words was greater for the Ginn texts at each grade level, compared to Open Court. Thus, at each grade level, the Ginn texts contain more "and's" at the beginning of sentences per 1,000 words than the Open Court texts.

The writing of the Ginn and Open Court children was compared for the

proportion of "and's" per total words. In Table 1, results at each grade level show that the Ginn stories in grades 2, 3,and 4 contained a greater proportion of "and's" per 1,000 words. Figure 2 contains sample sentences from the Ginn grade 2, 3, and 4 stories beginning with "and."

The word "Too": The texts were analyzed for another frequent style feature of the Ginn series, use of the word "too" at the end of sentences. For example:

> William waited until she finished talking.
> "—And," his mother said, "she wanted to know
> if you will take care of the dog too."
> "I would LIKE to take care of Stanley!"
> William said. "And I'll take care of their yard
> and everything too."

(Ginn, level 2.2, p. 33)

In the texts, all "too's" at the end of sentences were counted. In the children's stories, "too's" at the end of T-units were counted. The measure was the number of "too's" per 1,000 words.

In Table 1, results for the proportion of "too's" per 1,000 words in the textbooks indicates that there is a greater proportion of "too's" in the Ginn texts compared to the Open Court. In the children's writing, the proportions were higher for the Open Court writing at grade 2 and 4 and higher for the Ginn writing at grade 3. The overall count of terminal "too's" in the children's writing, however, was low. Thus, there were no substantial differences in the Ginn and Open Court children's use of "too."

Format of the Texts

Further analysis of the children's writing and its comparison with the two reading series indicated that the format of the texts influenced the writing of the children. In the Ginn 360 series, levels 1.2 and 2.1, each text has the following nonstandard paragraph format:

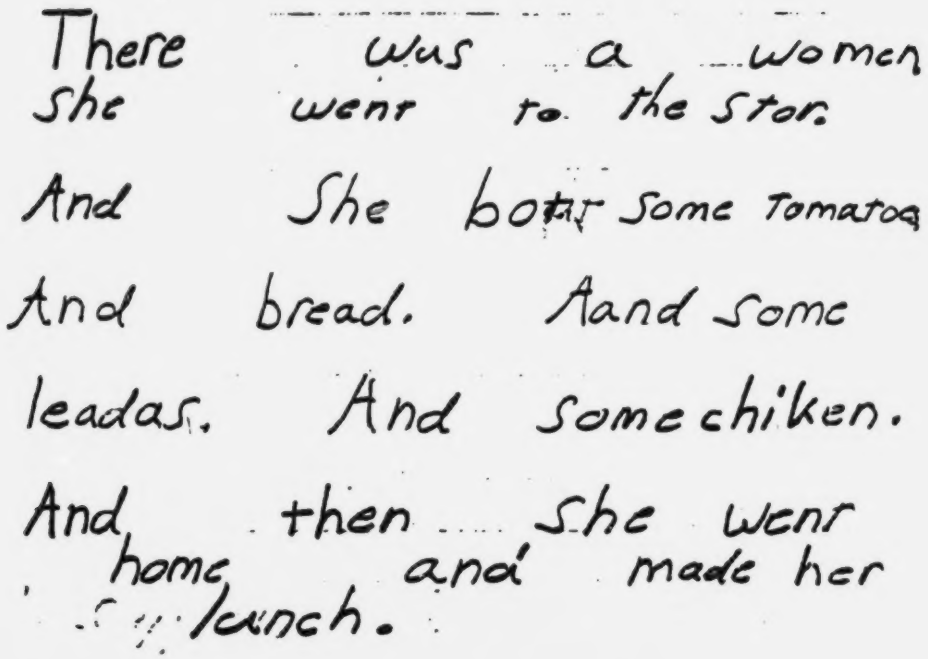
> The people in Little Town
> liked the signs Mr. Pine made.
>
> But the signs in Little Town got old—
> too old for people to read.
>
> The Mayor said, " I will ask Mr. Pine
> to put up some new signs. "
>
> The Mayor went
> to Mr. Pine's house.

(Ginn, level 1.2, p. 97)

Nonstandard features of the texts include: UNUSED LINE SPACES at the end of lines, which occur when each sentence begins on a new line; EXTRA LINES inserted between sentences, perhaps to indicate new paragraphs; and ONE SENTENCE PER LINE, in which sentences occupy only one line. To count the number of unused spaces in the texts and children's writing, each space at the end of a line was counted as an unused space if the space was large enough to contain the first word that appeared on the following line. Each occurrence of an unused line space, extra line, and one sentence per line each was counted in the text samples and in the children's stories. The base measure for these format features was the total number of lines.

At each grade level, analyses of the individual format features were undertaken to determine the separate effect of each format feature on the

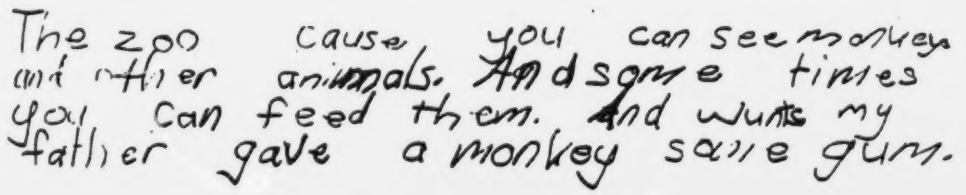
Second grade child: level 2.1



There was a woman. She went to the stor. And She bought some tomatoes. And bread. And some lettuce. And some chicken. And then she went home and made her lunch.

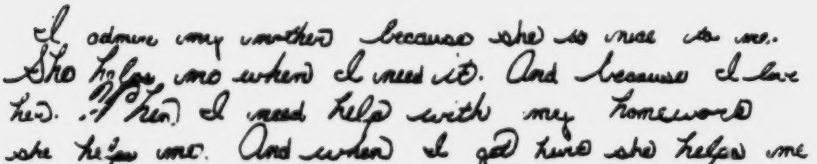
Figure 7: Ginn stories with "And"

Second grade child: level 7


The zoo cause you can see monkeys
and other animals. And some times
you can feed them. and wunts my
father gave a monkey some gum.

The zoo cause you can see monkeys and other animals. And sometimes you can feed them. And once my father gave a monkey some gum.

Third grade child: level 10 (Ginn 360)


I admire my mother because she is nice to me.
She helps me when I need it. And because I love
her. When I need help with my homework
she helps me. And when I get hurt she helps me
Or whenever I'm sick she'll be there for
me.

I admire my mother because she is nice to me. She helps me when I need it. And because I love her. When I need help with my homework she helps me. And when I get hurt she helps me. Or whenever I'm sick she'll be there for me.

Figure 2 Con't

children's writing. Table 1 shows that at each grade level the Ginn texts contain more of each format feature than the Open Court texts, except for grade 4 where there were no differences in extra lines per total lines.

Further analyses reveal that at grade 2 the actual proportions for each feature (unused spaces per total lines: G = .35, OC = .21; extra lines per total lines: G = .04, OC = .00; one sentence per lines per total lines: G = .17, OC = .02) reflect the substantial difference in the occurence of these features in the two reading series.

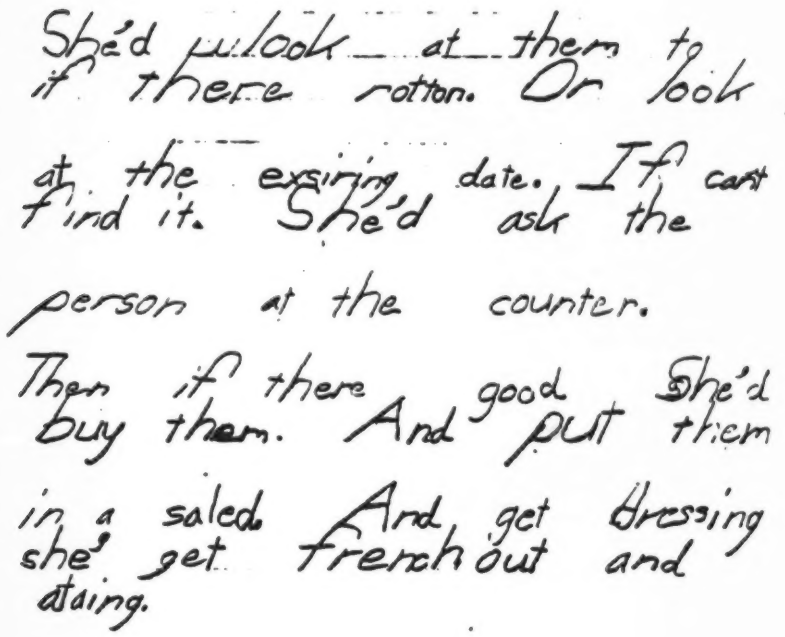
Similar analyses at the grade 3 level, on the other hand, reveal small if any differences between Ginn and Open Court in unused spaces per total lines (G = .19, OC = .15), extra lines per total lines (G = .001, OC = .00) and one sentence per lines per total lines (G = .02, OC = .02). Likewise, a comparison of the Ginn and Open Court grade 4 texts showed that there were no substantial differences in the number of unused line spaces per total lines (G = .19, OC = .16). Also, the number of extra lines per total lines (G = .00, OC = .00) and the number of one-line sentences (G = .02, OC = .01) become negligible.

In sum, the grade 3 and 4 Ginn texts and all of the Open Court texts have formats more typical of standard written English prose than the grade 2 Ginn texts, which contain many nonstandard format features.

The children's writing reflected the format differences in their reading series. Overall, the Ginn children used three times as many nonstandard format features as the Open Court children. Analysis of the individual format features showed that 50% of the Ginn children compared to 22% of the Open Court children left unused line spaces in their writing. (See Figure 3.) At each grade level, there were more unused line spaces in the Ginn writing than in the Open Court. (See Table 1.) There was, however, a substantial decrease in the number of unused line spaces from grade 2 to grade 4 in the Ginn children's writing. By grade 4, the writing of these children, like their texts, had standard formats.

A comparison of the proportion of extra lines inserted per total lines in the Ginn and Open Court children's writing indicates that overall the Ginn children

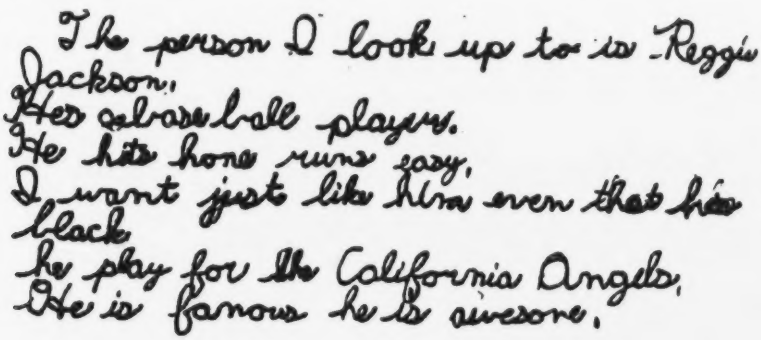
Second grade child: level 2.1


She'd pulook at them to
if there rotton. Or look
at the exsiring date. If cant
find it. She'd ask the
person at the counter.
Then if there good She'd
buy them. And put them
in a saled. And, get dressing
she' get French out and
dtaing.

She'd look at them to if they're rotten. Or look at the exspiring date. If can't find it. She'd ask the person at the counter. Then if they're good She'd buy them. And put them in a salad. And get French (?) and Italian

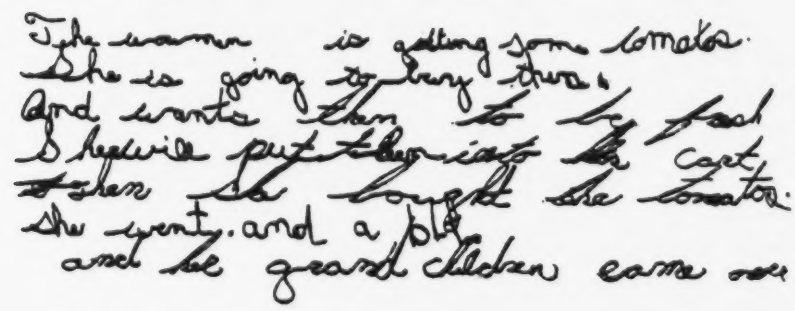
Figure 7: Format Features in the Ginn children's Writing

Third grade child: level 10 (Ginn 720)


The person I look up to is Reggie
Jackson.
He's a baseball player.
He hits home runs easy.
I want just like him even that he's
black
he play for the California Angels.
He is famous he is awesome.

The person I look up to is Reggie Jackson.
He's a baseball player. He hits homeruns easy.
I want just like him even that he's black
he play for the California Angels.
He is famous he is awesome.

Third grade child: level 9


The woman is getting some tomato.
She is going to buy them.
And wants them to be fresh
She will put them into her cart
Then She bought the tomatoes. she went.
and a bLt. and her grandchildren came over

The woman is getting some tomatoes. She
is going to buy them. And wants them to
be fresh. She will put them into her cart
Then She bought the tomatoes. she went.
and a bLt. and her grandchildren came over

Figure 7 Con't

inserted more extra lines. This result, however, was largely the responsibility of Ginn second graders, who were reading texts where this format predominates. Figure 3 clearly shows that the children's writing mirrored their texts. Only one grade 3 Ginn child inserted an extra line and no fourth graders did so. Thus, this nonstandard format feature almost completely disappeared from the children's writing by grade 3.

The Ginn children compared to the Open Court children wrote twice as many one line sentences. An analysis of the number of sentences occupying one line compared with all other sentences showed that, at each grade level, the Ginn children wrote more one line sentences.

Overall, these findings suggest that grade 2 Ginn children and some grade 3 Ginn children tended to use the nonstandard format features of the preprimers and the level 1.2, 2.1, and 2.2 readers as models for their writing. Because the Ginn third, fourth, and fifth grade texts have standard formats, there is a decrease in the effects of exposure to the early readers. By grade four Ginn children's writing had predominantly standard features.

Summary of Results

Results for the texts, the children's writing, and the texts and writing were compared statistically by means of the sign test. Table 1 shows that 31 out of 33 text comparisons ($p < .001$) and 25 out of the 33 children's writing comparisons were pluses ($p < .003$). That is, the Open Court texts and writing contained more words, T-units, clauses, elaborate structures, and complex verbs, whereas the Ginn texts and writing contained more simple verbs, "And's," "too's," unused line spaces, extra lines, and one sentence lines. Moreover, results for the children's writing matched the results for the texts in 24 of the comparisons ($p < .008$).

Sign test comparisons were also conducted separately for each of the major features of texts and children's stories. For the linguistic features, 17 out of the 18 text comparisons ($p < .001$), 13 out of the 18 children's writing comparisons ($p = .096$), and 12 out of the 18 texts and writing comparisons were pluses ($p = .278$). Thus, the Open Court texts contained significantly more

complex linguistic features than the Ginn texts and the children's writing approached significance in this regard. Even though there were too few matches between results for the children's writing and results for the texts to reach statistical significance, the results were in the expected direction. Hence, linguistic features in the children's writing tend to match the features in their texts.

The style features, "And" and "too," occurred, as expected, more frequently in the Ginn texts (plus marks = 6, minuses = 0, $p < .03$). Results for the children's writing comparisons (pluses = 4, minuses = 2, $p = .69$), however, were not statistically significant because the overall occurrence of "too's" was infrequent in the children's writing. Consequently, the number of possible matches between results for the texts and results for the writing was quite small.

Finally, results for the format features (unused line spaces, extra lines, and one sentence per lines) show that out of the 9 text comparisons there were 8 plus marks, 0 minuses, and 1 tie ($p < .008$). The Ginn texts, as expected, contained significantly more of each format feature than the Open Court texts. The results were exactly the same for comparisons of the Ginn and Open Court children's writing (plus marks = 8, minuses = 0, tie = 1, $p < .008$), which indicates that the Ginn writing also contained significantly more of the same format features than the Open Court writing. Consequently, results for the children's writing exactly matched the results for the texts (plus marks = 8, minuses = 0, ($p < .008$). These strong findings show that the Ginn texts and writing contained significantly more of the format features than the Open Court texts and writing.

Quality of the Children's Writing

Holistic writing scores were compared for the Ginn and Open Court children's narrative, expository, and argumentative stories combined. T-test results show that grade 2 and 4 Open Court children scored significantly higher on the holistic ratings than their Ginn counterparts. (See Table 2.) At the grade 3 level, the Open Court children scored only slightly higher than the Ginn children (G = 6.62,

OC = 6.90, t = .50, p = .31). Figure 4, a graph of the results at each grade level, clearly illustrates the score differences in favor of Open Court at the grade 2 and 4 level and the lack of major differences at the grade 3 level. Overall, the quality of the grade 2 and 4 Open Court children's writing was superior to that of the Ginn children's.

Table 2. Average Holistic Writing Scores

Grade	Text	Stories	Mean	S.D.	t Value	p Value
2	G	36	3.78	2.13	4.10	<.001
	OC	12	5.75	1.95		
3	G	39	6.62	2.02	.50	.31
	OC	39	6.90	2.85		
4	G	33	6.03	1.76	3.89	<.001
	OC	33	8.21	2.70		

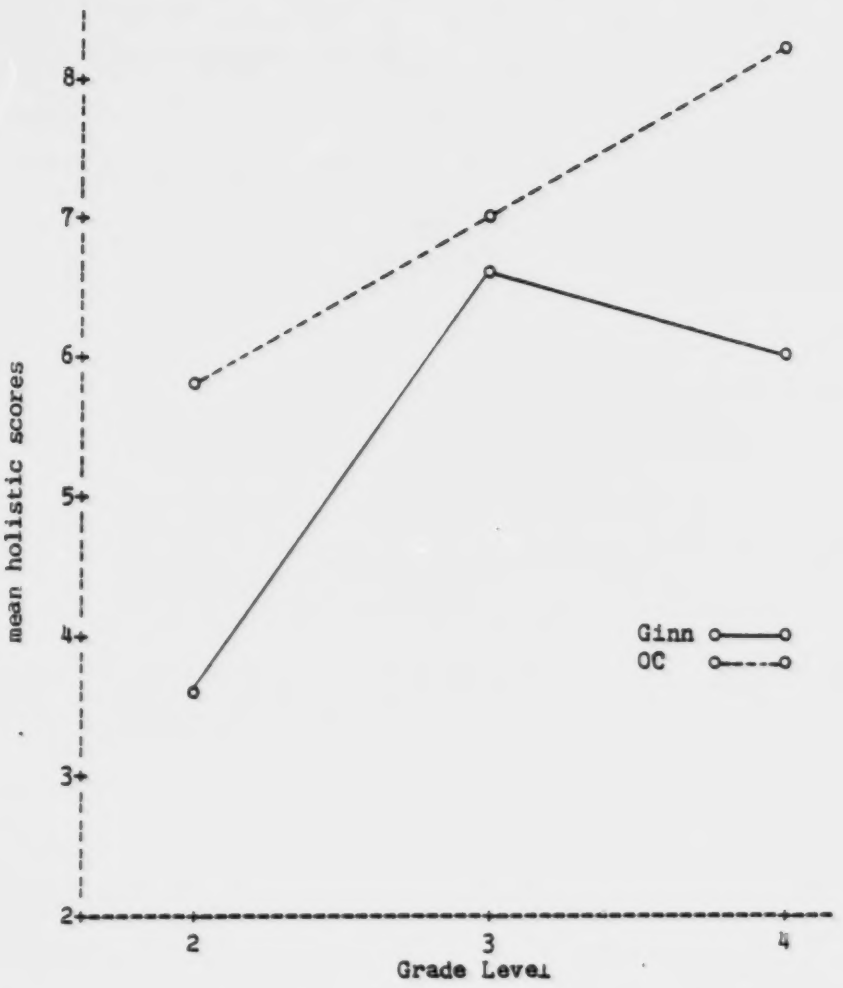


Figure 4. Mean Holistic Scores of the Combined Narrative, Expository, and Argumentative Stories of Children who Read the Ginn and Open Court Texts

Differences in the types of features that occurred in the children's writing may help to explain why there were no significant differences in the grade 3 writing. The writing of the grade 3 Ginn children contained more words, more clauses, and more elaborate structures than the writing of the grade 3 Open Court children. These features are necessary to express complex ideas, make the writing appear varied, and are probably responsible for the generally favorable ratings assigned by the judges. Given these findings, one would expect the Ginn writing to have been judged superior to the Open Court. The Ginn writing, on the other hand, also contained more "And's" at the beginning of sentences than the Open Court writing.

The style feature "And" forms a repetitive pattern which makes the writing appear to be less varied and perhaps less mature (see Figure 1). Thus, in the grade 3 Ginn writing, the favorable impression of the elaborate linguistic features may have been offset in part by the style feature "And", which in turn lowered the judges' perceived differences between the writing of the Ginn and Open Court children. On the other hand, the grade 2 and 4 Open Court stories contained more words, T-units, clauses, and elaborate structures and very few "And's," compared to the Ginn stories. At the same time, the holistic scores were higher for the Open Court stories, which again suggests that complex linguistic features enhance writing quality, while patterned style features, such as "And," detract from the perceived quality of children's writing.

Alhough the use of complex verbs may contribute to writing quality, the actual differences in verb usage in the Ginn and Open Court children's writing was small and thus is unlikely to have affected the judged quality of the children's writing. Finally, format features did not enter into the holistic judgments of the children's writing. To prevent differences in the children's handwriting and spelling from affecting the raters' judgements, the stories were typed in standard paragraph format with misspellings corrected. Consequently, format features were excluded from the holistic scorings of the writing samples. Stories containing such features, as with the style features, appear patterned, which lessens their

overall quality compared to stories written more in standard formats. Although these style and format features had disappeared from the children's writing by grade 4, differences remained between the Ginn and Open Court children in their use of complex linguistic structures.

DISCUSSION AND CONCLUSIONS

There is strong evidence to support the hypotheses of this study; namely, the books children read have a strong impact on their writing. Replicating the study in a different community with different children and teachers, in part different texts, an additional writing stimulus, and more extensive measures and controls makes it possible to conclude that the results of the preliminary study were not an isolated phenomenon.

The results were positive for the linguistic, style and format features of the texts. Perhaps the most important finding is that the Open Court children compared to the Ginn children tended to use more the linguistically complex sentence structures that they found in their texts, such as subordinate clauses, infinitive phrases, and participial phrases. Children who use these structures in their writing are better able to express complex ideas and relationships than children who are limited to simpler structures.

Not only did linguistic features of the texts serve as models for the children, but also certain salient stylistic features served as well. Apparently, sentences beginning with "and" in the Ginn texts served as models for the Ginn children's writing because these children used "and" more often than did the Open Court children. The use of "and" at the beginning of sentences, a salient feature for the Ginn texts, may have served to lower the readability score of the texts, as measured by standard readability formulas. The Ginn children's use of "and," however, reduced the linguistic complexity of their writing. In addition, the repetitive use of "and" to begin sentences reduced sentence variety and made the writing appear patterned.

Finally, there is clear evidence that children copy the format of the texts

they read. The Ginn children reading the grade 2 texts wrote compositions with unused line spaces, extra lines, and one sentence per line more frequently than either the Ginn children reading the grade 3 and 4 texts or the Open Court children. The nonstandard format of the Ginn children's writing influenced the way some of them punctuated. Findings from the preliminary study and unreported findings showed that several Ginn children continued to punctuate as though there was one sentence per line, ending a line with a period and beginning the next with a capital even though the sentences continued onto the next line.

That the writing of the children so clearly contains features of their reading texts is important because the presence of these features apparently affected the perceived quality of the children's writing. At grade 2, the writing of the Open Court children, with its complex linguistic features, received significantly higher holistic scores than the Ginn writing with its patterned style. At grade 4, even though the style and format features had disappeared in the Ginn children's writing, differences remained in the Ginn and Open Court children's use of elaborate structures and in the quality of their writing. Although it is difficult to tease out which features are most responsible for writing quality, it seems likely that elaborate structures enhance the writing while the style and format features from the Ginn texts detract from the overall quality of the children's writing. Ginn children who read patterned, less complex texts from the time they enter first-grade must "unlearn" these patterns and at the same time learn complex linguistic patterns. These children are probably at a disadvantage compared to the Open Court children who read more elaborate and valid models of written English from first-grade on.

Of concern to educators is whether the Ginn children can compensate for their reading textbooks. Books other than reading texts which children read, as the reversal in results at the grade 3 level indicated, clearly influence their writing. Students whose teachers encourage them to read widely on a variety of topics and whose parents encourage reading at home obviously benefit from exposure to other models of English prose, which in turn may affect their writing. Thus,

one way to compensate for the effects of the primary Ginn readers may be to increase children's exposure to a wide variety of literature.

As researchers contemplate further studies, there are some important methodological issues that should be considered. It is important is to minimize the effects of possible confounding variables, such as classroom instruction, reading ability, and children's outside reading. In future studies, the availability of a larger pool of children would allow for more precise statistical control of potentially confounding factors. With larger numbers, multivariate statistical techniques would make it possible to control for more than one factor at a time. Because the grade 3 results suggested that differences in reading ability may have affected the outcomes, controlling for both I.Q. and reading ability may be advantageous for achieving groups of equal ability.

Increasing the size of the study, however, introduces another methodological problem -- finding sufficient subjects. Studying children in one school system enables researchers to discount effects due to differences in communities and school systems. In the school system I studied, however, many of the students had been exposed to both basal series and were therefore eliminated from the sample. Also, students' cumulative records were sometimes incomplete which made it difficult to identify students who had read both basal series. As a result, to provide sufficient subjects, my sample included students from more than one Ginn class at each grade level. This in turn increased the likelihood that differences in the children's writing resulted from differences in classroom instruction. Future researchers may want to study children from several similar communities to preclude these difficulties.

Finally, because instruction is an important confounding variable, accurate, detailed information on teachers' instructional techniques should be collected. There is no satisfactory answer to this problem without spending many hours in classrooms observing, an alternative that is often not feasible because of time and expense. Despite the lack of detailed observations, the teacher interviews used in this disseration managed to pinpoint differences in teacher attitudes

toward reading and writing, classroom activities, and time spent on reading and writing that were helpful in the interpretation of results.

Another methodological concern is to elicit complex structures in in the children's writing. Because my disseration findings, as well as the research literature, concur that argumentative stimuli elicit the most complex linguistic structures, the use of such stimuli, rather than narrative and expository stimuli, produces a greater yield in the analysis of more complex linguistic structures.

As researchers undertake further studies, it is also important for them to consider other text features that possibly influence children's writing and therefore contribute to overall differences in writing quality. The Open Court texts seem to contain more difficult vocabulary than the Ginn texts. Preliminary analysis of the children's writing suggests that Open Court children may also use more difficult words in their writing. For example, one Open Court third grader used the word "authorities," while the word most commonly used by the Ginn children was "police."

In addition, the Open Court texts contained more detailed descriptions of people, places, and events than the Ginn texts; for example:

> No one knows where Johnny Appleseed finally was laid to rest, but in the spring, when the apple orchards of Pennsylvania, Ohio, and Indiana are in bloom, the deeds of this brave and kindhearted man are brought to mind by the sweet perfume of the apple blossoms.
> (Open Court, level 2^2, p. 84)

> And in the West there were apple trees where there had been no apple trees before, because strange young Johnny planted the seeds.
> (Ginn, level 2^2, p. 114)

In similar fashion the writing of the Open Court children seems more descriptive than the Ginn children's writing. For example, one Open Court child wrote: "She sees a man who looks pretty strange. He has a leather jacket on and some dark green glasses and his pants are red velvet. His hair is very long and he has a beard. Suddenly she saw him put a package of tomatoes into his jacket" (OC, grade 4). It has not been possible to find comparable descriptive writing by the Ginn

children. Future researchers need consider these differences and devise measures for distinguishing them in the texts and children's writing.

That the Open Court children's writing was more elaborate has important implications for educators and publishers. Over the past years, many publishers have controlled the vocabulary and sentence comlexity of basal readers to facilitate children's learning to read. This appears to have a strong effect on children's writing. These findings suggest that educators and publishers need to face the problem of writing texts that facilitate children's learning to decode words but at the same time provide adequate models of written English.

Specific recommendations include printing the texts in standard prose format since there is no research to suggest that the unusual formats in the Ginn texts facilitate children's learning to read, and my results indicate that the nonstandard formats may adversely affect children's writing. A second recommendation is to use commas to join main clauses instead of breaking compound sentences into two sentences, the second one beginning with "And." Again, there is no research to suggest that children have difficulty comprehending compound sentences. Moreover, this research outlines the adverse effects of writing to satisfy the needs of a readability formula.

Finally, the basal texts with complex linguistic structures clearly enhance children's learning to write, but there is another important consideration. Do these texts also enhance children's learning to read? Children in grades four to six who have gained fluency and speed in their reading and who are now "reading to learn the new" -- new knowledge, information, thoughts and experiences" (Chall, 1983) would benefit from reading the Open Court texts with their selections on American and European history, science, and famous people rather than the Ginn texts with their predominantly narrative stories. Children in grades 2 and 3 who have mastered basic decoding skills and who are practicing their reading skills to gain fluency and speed would benefit from reading many familiar books (Chall, 1983). The Open Court basal texts with their fairy tales and fables provide more familiar stories for children to read than the Ginn series. The unanswered

question is whether the controlled vocabulary, shortened sentences, and patterned language of the Ginn texts more effectively facilitate children's learning to decode than the linguistically complex style of the Open Court texts. Educators, researchers, and publishers need to consider this important issue to determine the type of reading texts that not only enhance learning to break the code but also provide natural models of written English.

BIBLIOGRAPHY

Chall, J. S. Stages of Reading Development. New York: McGraw-Hill, 1983.

Crowhurst, M. Developing syntactic skill: doing what comes naturally. Language Arts, 1979, 56, 522-25.

Crowhurst, M. Syntactic complexity in narration and argument at three grand levels. Canadian Journal of Education. 1980, 5, 6-13.

Eckhoff, B. How reading affects children's writig. Language Arts, 1983, 60, 606-17.

Evanechko, P., Ollila, L., and Armstrong, R. An investigation of the relationship between children's performance in written language and their reading ability. Research in the Teaching of English, 1974, 8, 315-326.

Graves, D. A new look at writing research. Language Arts, 1980, 57, 913-918.

Huck, C.S. Iventory of Children's Literary Background. Chicago, IL: Scott, Foresman and Company, 1966.

Loban, W. Language Development: Kindergarten Through Grade Twelve. Research Report No. 18. Champaign, Ill.: National Council of Teachers of English, 1976.

Perron, J.D. The impact of mode on written syntactic complexity: Part I--third grade. Athens, Georgia: Univ. of Georgia, 1976a. (ERIC Document Reproduction Service No. ED 126 531)

Perron, J.D. The impact of mode on written syntactic complexity: part II--fourth grade. thens, Georgia: Univ. of Georgia, 1976b. (Eric Document Reproduction Service No. ED 126 511)

Spearritt, D. Relationships among the four communication skills during the primary shcool years. in W.J. Crocker (Ed.), Developing Oral Communication Competence. Armidale, Australia: Univ. of New England, 1980.

Stotsky, S. A review of research on the relationship between reading and writing: directions for future research. Paper presented at the annual meeting of the International Reading Association, Chicago, April 1982.